

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Attorney Docket No.: 1101.146WOUS

Rytter et al.

Confirmation No.: 1843

Application No.: 10/535,066

Examiner: Daniel J. Berns

Filed: March 15, 2006

Group Art Unit: 1793

For: FISCHER-TROPSCH CATALYSTS

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AFFIDAVIT PURSUANT TO 37 C.F.R. § 1.132

I, Sigrid Eri, declare under penalty of perjury that the following is true and correct to the best of my knowledge, information and belief:

1. I am a named inventor on U.S. Patent Application Serial No. 10/535,066, entitled "Fischer-Tropsch Catalysts" filed on March 15, 2006, which claims priority to PCT Application No. PCT/GB2003/004873 filed November 10, 2003, and Great Britain Patent Application No. 0226514.8 filed November 13, 2002.

2. I was one of the inventors of the present invention directed to a catalyst for use in a Fischer-Tropsch synthesis reaction which comprises cobalt supported on alumina, in which the catalyst average particle size is in the range 20 to 100  $\mu\text{m}$ ; the specific surface area of the impregnated and calcined catalyst particles is greater than 120  $\text{m}^2/\text{g}$ ; the average pore size of the impregnated and calcined catalyst is at least 90 Å (9nm); and the pore volume of the impregnated and calcined catalyst is at least 0.45  $\text{cm}^3/\text{g}$ .

3. I have read and understood European Patent Application EP 0736326 A1 to Espinoza.

4. I have read the Office Action dated February 26, 2009 and understand that the present invention was rejected as being anticipated by Espinoza, particularly the data in Table 5 and Examples 60-65 in Espinoza.

5. Table 5 and Examples 60-65 in Espinoza, however, refer to the properties of the starting material. In Espinoza, the starting material is an alumina support identified as Puralox SCCa 5/150. It is important to appreciate that when the alumina support is subjected to treatment to form a Fischer-Tropsch catalyst, the resulting catalyst has properties that differ from the starting material.

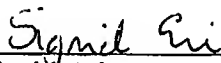
6. I prepared catalysts using Puralox SCCa 5/150 as the starting material for the alumina support. The catalysts were prepared by incipient wetness using the same method as described in U.S. Patent Application Serial No. 10/535,066, entitled "Fischer-Tropsch Catalysts".

7. The same tests to determine the specific surface area and pore volume of the present invention were also conducted on the Puralox SCCa 5/150 starting material and the resulting catalyst with the Puralox SCCa 5/150 as the alumina support. The results of the tests are as follows:

Support or Catalyst	Specific Surface Area (m <sup>2</sup> /g)	Pore Volume (cm <sup>3</sup> /g)
SCCa 5/150 alumina support, data from Table 5 of Espinoza	150	0.5
SCCa 5/150 alumina support, results from test performed	142	0.459
Catalyst containing 20g Co/100g alumina prepared by impregnating SCCa 5/150 with Co	126	0.341
Catalyst containing 30g Co/ 100g alumina prepared by impregnating SCCa 5/150 with Co	117	0.287

7. The results of the tests that were conducted clearly indicate that the values of the specific area and pore volume decrease as cobalt is deposited in the pores of the starting SCCa 5/150 alumina support material. Therefore, the physical property data of the specific area and pore volume in Table 5 of Espinoza is not representative of the physical properties of the resulting Fischer-Tropsch catalyst.

Executed this 29th day of July, 2009

  
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